

MARRINERS INC.
KNOX COUNTY
WASHINGTON, MAINE
A-239-71-I-R/M

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DEPARTMENTAL
FINDINGS OF FACT AND ORDER
AIR EMISSION LICENSE

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction:

Marriners, Inc. (Marriners), located in Washington, Maine has applied to renew their Air Emission License, permitting the operation of their portable asphalt batch plants, and their crushed stone and gravel facility. They also request the revision of some language in the rock crusher and material stockpile sections.

B. Emission Equipment:

Asphalt Plants:

Equipment	Process Rate (tons/hour)	Design Capacity Firing Rate	Control Devices	Date of Manufacture
Plant #1	46.5	41.7 MMBtu/hr, 298 gal/hr, #2 fuel, spec waste oil, @ 0.05% S	Water Sprays	Pre 1973
Plant #2	140	76.7 MMBtu/hr, 548 gal/hr, #2 fuel oil @ 0.05% S	Water Sprays	1981

Rock Crushers:

Designation	Powered	Process Rate (tons/hour)	Control Device	Date of Manufacture
Primary	electrical	230	Spray Nozzles	Pre 1983
Secondary #1	electrical	230	Spray Nozzles	Pre 1983
Secondary #2	electrical	230	Spray Nozzles	Pre 1983

C. Application Classification:

The application for Marriners does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units, and a minor revision of some language elements.

II. BEST PRACTICAL TREATMENT

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

the existing state of technology;
the effectiveness of available alternatives for reducing emissions from the source being considered; and
the economic feasibility for the type of establishment involved.

A. Asphalt Plant #1

Asphalt Plant #1 was manufactured pre-1973; therefore, is not subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

To meet the requirements of Best Practical Treatment (BPT) for the control of particulate matter (PM) emissions from the asphalt plant, Marriners shall prevent visible emissions greater than 20% opacity based on six (6) minute block averages.

Therefore, emissions from the asphalt operation and kiln shall vent to a baghouse to meet the requirements of BPT. Regulated pollutants emitted from the kiln are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC).

The performance of the baghouse shall be constantly monitored by either one of the following at all times the kiln is operating:

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1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Marriners shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

Based on the above asphalt batch plant process rate and the previous licensed limit of 0.045 lb PM/ton of product, the average emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf (2.1 lb/hr). Other BPT emission rates are based on the following:

SO₂ – Mass Balance

NO_x, CO, VOC – AP-42 Data

B. Asphalt Plant #2

The Dryer was manufactured in 1981 and therefore is subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

To meet the requirements of BPT and NSPS for the control of particulate matter (PM), emissions from the asphalt plant kiln shall vent to a baghouse. Opacity from the asphalt plant baghouse is limited to no greater than 20% on a six-minute block average basis, except for no more than 2 six-minute block averages in a continuous 3-hour period.

Based on the above hot mix asphalt plant process rate, the average PM emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf (8.8 lb/hr). Other BPT emission rates are based on the following:

SO₂ – Mass Balance

NO_x, CO, VOC – AP-42 Data

The performance of the baghouse shall be constantly monitored by either one of the following at all times the kiln is operating:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Marriners shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.

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2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

- C. Fugitive particulate emissions from Asphalt Plants #1 and #2 shall be controlled so as to prevent visible emissions in excess of 10% opacity on a six-minute block average basis.

Petroleum contaminated soil processing cannot exceed 10,000 cubic yards per year without prior approval from the Department. The facility may not process oil-contaminated soil other than virgin oil-contaminated soil (#2 fuel oil or gasoline) material without prior approval from the Department.

- D. Primary Rock Crusher and Secondary Rock Crushers #1 and #2

The primary, and two secondary, rock crushers were each manufactured in 1977, each with a rated capacity of 230 tons/hour. Since the rock crushers were built before 1983, The primary, and two secondary rock crushers are not subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants. However, Marriners has chosen to comply with the requirements of Subpart OOO regardless. Because of this, Marriners is exempt from the record keeping required by Subpart OOO Section 60.676.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Marriners shall control visible emissions to no greater than 10% opacity based on a six (6) minute block average basis. Therefore, Marriners shall continue to maintain water sprays on the primary, and two secondary rock crushers and operate them **as needed** for particulate control.

- E. Stock Piles and Roadways

BPT for all potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled, **as needed**, by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality. Visible Emissions shall not exceed an opacity of 20%, except for no more than 5 minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period.

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F. Facility Emissions and Fuel Caps

Asphalt Plants #1 and #2 fire #2 fuel oil with a sulfur content not to exceed 0.05% by weight. Fuel use shall not exceed 1,000,000 gal/year (facility-wide) of fuel based on a 12-month rolling total.

Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

Tons/Year						
Equipment	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Asphalt Plant #1	1.23	1.23	1.23	1.50	3.55	0.87
Asphalt Plant #2	5.22	5.22	2.29	4.57	10.80	2.66
Total	6.45	6.45	3.52	6.07	14.35	3.53

Emissions are based on burning 1,000,000 gal/yr of #2 fuel oil @ 0.05% Sulfur, with a fuel consumption ratio of 35% Asphalt Plant #1 and 65% Asphalt Plant #2. This ratio is derived from the respective gal/hr fuel burning rates of the Asphalt Plants.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Modeling and monitoring are not required of a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>TPY</u>
PM	50
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the emissions listed above, Marriners is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,

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will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-239-71-I-R/M, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall

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maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and

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operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status
- (16) Asphalt Plants #1 and #2 [MEDEP Chapter 115, BPT]
a. Emissions from the asphalt plants shall vent to baghouses, and all components of the asphalt plant shall be maintained so as to prevent PM leaks.

- b. The performance of the baghouses shall be constantly monitored by either one of the following at all times the rotary dryer is operating:
 - 1. PM detector – when the detector signals excessive PM concentrations in the exhaust streams, Marriners shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 - 2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plants are operating with insufficient control and corrective action shall be taken immediately.
- c. To document maintenance of the baghouses, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the facility.
- d. Opacity from each baghouse is limited to no greater than 20% on a six-minute block average basis, except for no more than 2 six-minute block averages in a continuous 3-hour period.
- e. Fugitive PM emissions from the asphalt operations shall be controlled so as to prevent visible emissions in excess of 10% opacity on a six-minute block average basis.
- f. Emissions from each baghouse shall not exceed the following:

Asphalt Plant #1			Asphalt Plant #2	
Pollutant	grs/dscf	lb/hr	grs/dscf	lb/hr
PM	0.03	2.10	0.03	8.80
PM ₁₀	-	2.10	-	8.80
SO ₂	-	2.10	-	3.86
NO _x	-	2.56	-	7.70
CO	-	6.05	-	18.20
VOC	-	1.49	-	4.48

- g. The licensee shall not process more than 10,000 cubic yards of petroleum contaminated soils per year without prior approval from the Department. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.
- h. Without prior approval from the Department, the only oil-contaminated soil that the licensee may process is virgin oil-contaminated soil material (#2 fuel oil and gasoline).
- i. The licensee shall not process contaminated soils which are classified as hazardous waste or which have unknown contaminants.
- j. When processing petroleum contaminated soils, the licensee shall maintain records which specify the quantity and type of contaminant in the soil, the origin of the soil and the contaminant, and the characterization of the contaminated soil. In addition, when

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processing contaminated soil, the licensee shall maintain records of processing temperature, asphalt feed rate, fuel use, soil moisture content, and dryer throughput, on an hourly basis.

17. Primary and Secondary Rock Crushers

[MEDEP Chapter 115, BPT]

- a. Marriners shall continue to maintain spray nozzles on all primary, and secondary rock crushers and operate them **as needed** for particulate control. Visible emissions from the crushers shall be limited to no greater than 10% opacity based on six (6) minute block averages.
- b. Marriners shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be located at the facility whenever the facility is in operation.
- c. Marriners shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the primary, and secondary rock crushers. The operation log shall be located at the facility whenever the facility is in operation.

18. New Source Performance Standards for rock crushers

- a. Marriners has chosen to comply with the requirements of 40 CFR Part 60 Subparts A and OOO for the Primary and Secondary Rock Crushers. Therefore Marriners is exempt from the record keeping requirements of 40 CFR Part 60.676.
- b. Marriners shall have an initial performance test performed on the rock crushing operation per the applicable sections of 40 CFR Part 60, Subpart OOO, §60.675. This consists of a certified Method 9 observation. Marriners shall submit a test notice to the regional inspector at least 30 days prior to the performance test. Any rescheduled test requires a 7 day notice to the regional inspector.

19. Fuel Use Cap

Marriners shall be limited to burning 1,000,000 gal/yr (12 month rolling total) of #2 fuel oil with a sulfur content not to exceed 0.05% by weight. Fuel purchase receipts indicating quantity and sulfur content of fuel shall be maintained on site for at least six years. [MEDEP Chapter 115, BPT]

20. Potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled, **as needed**, by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality. Visible Emissions shall not exceed an opacity of 20%, except for no more than 5 minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity

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observations which exceed 20% in any 1-hour period. [MEDEP Chapter 115, BPT]

21. Equipment Relocation [MEDEP Chapter 115, BPT]
- a. Marriners shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:
- Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
- The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.
- b. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
22. Marriners shall pay the annual air emission license fee within 30 days of **June 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [MEDEP Chapter 115, BPT]
23. Marriners shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BPT]
24. The term of this order shall be for five (5) years from the signature date below. [MEDEP Chapter 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/10/03

Date of application acceptance: 11/03/03

Date filed with the Board of Environmental Protection _____

This order prepared by Jonathan Voisine, Bureau of Air Quality.